



## Competitor Profile: Level 3 Communications

### Level 3 Overview

Level 3 Communications, founded in 1997 and currently based in Omaha, Nebraska<sup>1</sup>, is a CLEC planning to build a ground-up high-capacity local/long distance network, employing fiber-based Internet protocols exclusively. Level 3 also provides special access private lines and dedicated facilities. As Level 3's President and CEO James Crowe stated, "We want to be a phone company, we just happen to want to use IP."<sup>2</sup> As the founding CEO of MFS, Crowe is well-versed in the world of special access. (Most of Level 3's leadership and technical experts also got their start at MFS.) MFS, one of the largest Competitive Access Providers (CAPs) in the US, originally focused on special access and dedicated transport for business customers and interexchange carriers. Level 3's IP network, when completed, will handle all types of traffic (including special access and private line) and allow customers and carriers to develop applications that include both voice and data.<sup>3</sup> As one author noted: "The concept for Level 3 is simple. It's MFS with a fresh start. Same business plan, but this time based on Internet Protocol (IP) technology."<sup>4</sup>

Level 3 plans to offer a host of services to businesses using the Internet as a protocol. Its plans are to operate in up to 60 cities by 2001.<sup>5</sup> Level 3 recently launched a facility in McLean, VA to serve the Washington, DC metro area.<sup>6</sup> In addition, the acquisition of XCOM gave Level 3 access to the following facilities:<sup>7</sup>

- Cambridge, MA (August 1997 - one voice switch, Nortel DMS 500, which services Massachusetts, New Hampshire, and Rhode Island)
- New York City (1Q98 - one voice switch, Nortel DMS 500, also services NJ)
- Washington, DC (2Q98 - one voice switch, Nortel DMS 500)
- DE/CT (under construction).

The company is funded by Peter Kiewit & Sons, the same construction firm that funded MFS. Level 3 is certified as a CLEC in Maryland, Virginia, and Washington, DC. The company has also filed for certification in New Jersey and Pennsylvania. In its merger with XCOM, Level 3 also gained certification in Massachusetts, New Hampshire, New

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<sup>1</sup> Level 3 is now building a new headquarters in Broomfield, Colorado, which is expected to be ready by 2Q99.

<sup>2</sup> "The Return of the Titans" by Paula Bernier. In *PHONE PLUS*, March 1998, page 32.

<sup>3</sup> "Breaking the Mold" by Mary E. Thyfault. *Information Week Online*, January 19, 1998.

<sup>4</sup> "How Level 3 Worked Its Way to the Main Floor" by Kevin Maney. *USA Today*, April 1, 1998.

<sup>5</sup> New Paradigm Resources Group, *1998 Report on Local Telecommunications Competition*.

<sup>6</sup> Level 3 Press Release, October 22, 1998.

<sup>7</sup> New Paradigm Resources Group, *1998 Report on Local Telecommunications Competition*.

York and Rhode Island. Level 3 is competing in the business market, and in the CLEC and resale segments of the wholesale market. Thanks to the use of Internet protocols, the company claims that “it can deliver telecommunications services at less than one-tenth the cost of traditional telephone networks”.<sup>8</sup>

In addition to the communications company, Level 3 has an operating subsidiary, PKS Information Services, that provides computer outsourcing and systems integration services to business customers. PKS Information Services also helps corporations update their legacy systems so that they are technically able to take advantage of the benefits of Internet technology. This helps Level 3 to provide these customers with one-stop shopping for all of their communications and information services needs.

As a telecommunications and information services company, Level 3 plans to build and operate advanced fiber optic networks nationwide based on Internet technology. The company will use the network to provide a full range of services including local, long distance, data transmission, other enhanced services, and Internet access services. Level 3 intends to build a \$3 million fiber optic network to offer local and LD services on a wholesale basis to other carriers as well as to the small and medium business markets. This will ultimately include IP-based fax, data, and (when the IP network can effectively handle real-time communications) voice and video.

Since Level 3 is a relatively new start-up, it is building its network and leasing some facilities. And it did obtain some facilities in the Bell Atlantic footprint with its recent acquisition of XCOM Technology. The acquisition gave Level 3 gain a presence in Boston, New York, New Jersey, Maryland, Virginia, New Hampshire, Rhode Island, and Washington, DC. It also enables Level 3 to take advantage of selling its services (including private line and special access) to XCOM’s customer base. Level 3 recently launched its own facilities in various cities, with Washington, DC being the only one in Bell Atlantic territory at this time.

In addition, in the Bell Atlantic footprint, Level 3 offers web collocation with unlimited bandwidth and connections in New York City and Washington, D.C. The company also offers dedicated Internet access in Boston, New York, Philadelphia, and Washington, DC. These are indicative of the metropolitan areas in Bell Atlantic’s footprint where Level 3 already has a presence and can use that to sell the entire array of services that it will offer as its IP networks are completed over the next three years.

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<sup>8</sup> Roger O. Crockett, “Taking the Net to a Whole Other Level”. Business Week, April 6, 1998.

### **Level 3 Financial Profile**

When comparing the first six months of 1998 with those of 1997, Level 3's revenue from Communications and Information Services grew by 62%. This is the revenue growth in what Level 3 would consider its core businesses. Although EBITDA was negative in 1998, this reflects the start-up nature of Level 3's business and the costs incurred as the company begins the process of building out its networks and gearing up to serve customers. Level 3 is financially strong, and Dun & Bradstreet notes that the company has a net worth in excess of \$50 million and an overall "strong" credit appraisal.<sup>9</sup>

### **Strategic Acquisitions, Partnerships and Alliances**

In March 1998, Level 3 signed an agreement enabling it to lease capacity on Frontier's 13,000 mile SONET fiber optic IP-capable network for a period of up to five years. This leased network encompasses 8,300 route miles of OC-12 network capacity, initially connecting 15 of the largest U.S. cities. In Bell Atlantic's footprint, this includes New York City, Boston, Philadelphia, and Washington, DC. The leasing agreement is valued at approximately \$165 million. The agreement also gives Level 3 the option to increase network capacity if needed.<sup>10</sup>

In July 1998, Level 3 agreed to sell capacity on its nationwide fiber optic network to Nextel Communications and other affiliates of Craig McCaw for \$700 million. Internext (jointly owned by Nextel, Nextlink, and Eagle River Investments) will invest in Level 3's 15,000 mile intercity network. In exchange, Internext will acquire 24 dark fibers and its own conduit along the network. Nextel (a wireless carrier based in McLean, VA) and Nextlink (a CLEC based in Bellevue, WA) would essentially acquire their own long distance networks, since they would prefer to own the networks rather than lease them. Because of its fiber expertise and the need to interconnect the intercity sites, Nextlink will take the lead on the construction side. Internext's involvement defrays some of Level 3's expected \$2.2 billion network build. Both Level 3 and Internext benefit, since both companies will be able to construct their national networks at a lower cost. However, for competitive reasons, the deal prevents Internext from leasing or selling fiber to unaffiliated companies for the next four years.<sup>11</sup>

### **Overall Strategy**

Level 3's stated strategy is to go to a business customer with an offer of everything that customer uses today, with guaranteed quality and at a lower cost. The company's target

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<sup>9</sup> Dun & Bradstreet Report for Level 3 dated March 31, 1998.

<sup>10</sup> Company Press Release, March 24, 1998.

<sup>11</sup> "Helping Hands" by Jason Meyers. *Telephony*, July 27, 1998, page 8.

customers include businesses who will be end-users of Level 3's products as well as businesses who will resell Level 3's products to other businesses and to residential customers. The customer is advised to let Level 3 worry about how the traffic is transported (i.e., over IP).

Within three years, Level 3 expects to have a 15,000-20,000 mile network in place offering services in 60 cities. In addition, Level 3 expects to fold together the telecom assets of Kiewit Diversified Group and the assets of its subsidiary PKS Information Services, which offers outsourcing and other computer services.<sup>12</sup> In order to meet these ambitious goals, Level 3 can be expected to grow and to ultimately expand the network by acquisition and by leveraging some of its other interests.

Level 3 is building local fiber optic loops to offer local phone service that will compete directly with the RBOCs. This differentiates Level 3 from other companies such as Qwest Communications, which is building a national high-capacity, high-speed network but has not focused on building local loops. Most companies building new networks today are only building the long-haul portion. Level 3, on the other hand, is also planning to build in metropolitan areas. The Level 3 network will be pure IP from start to finish. As the Level 3 network is completed, traffic will be moved there. Level 3 estimates that the entire build will take 4 to 6 years to complete and \$8 to \$10 billion in capital to fund it.

Construction of Level 3's entire network is divided into five phases. Phases 1 and 2, which are pre-funded, include the completion of local networks in 25 U.S. cities (by the end of 1999), and 9,000 miles of intercity network in the U.S.

### **Analysts' Reactions to Level 3: Its Concept, Plan and Approach**

"The pricing differential will be so astronomic that established carriers will have to react. These guys [Level 3] are really going to have an impact." (Frank Dzubeck, president of Communications Network Architects).<sup>13</sup>

This is a dynamite idea. The IP future is going to happen to everybody but the most established carriers. If you're some poor older carrier that has to depreciate your network over many years, these guys [Level 3] are basically going to eat your lunch." (David Passamore, president, Decisys, Inc.).<sup>14</sup>

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<sup>12</sup> "The Return of the Titans" by Paula Bernier. In *PHONE PLUS*, March 1998, page 32.

<sup>13</sup> Level 3 Website, as quoted from *Network World*, January 26, 1998.

<sup>14</sup> In "Breaking the Mold" by Mary E. Thyfault. *Information Week Online*, January 19, 1998.

### **Level 3 Services**

Level 3 plans to offer services in the following categories:

Private Line: National Private Line service offers dedicated facility from start to finish. Level 3 is responsible from end to end.

- National Point to Point (DS0, Fractional T1, E1, DS3) offered on SONET technology (E1 only where local delivery of E1 is available)
- Level 3 Hub allows customers to distribute bandwidth simply and cost effectively. Level 3 provides the intercity connection and delivers pieces of the circuit to various end users for customers who need to distribute bandwidth to multiple sites in a market across the country.
- Monitor the network to ensure that troubles are corrected immediately
- Target Mean Time to Repair: Two Hours
- Target Availability: 99.99%

Internet Access: Offers businesses high-speed connectivity to the Internet for their corporate office locations, as well as dial-up access for remote or traveling employees. Also offers one-call resolution for any customer issue (via one nationwide toll-free number). 24x7 customer support. Level 3 Internet Dedicated Access products offer the following port speeds:

- 64 Kbps
- 128 Kbps
- 256 Kbps
- 384 Kbps
- 512 Kbps
- T1: 1.544 Mbps
- Fractional DS3: 6, 9, 12, 15, 18, 21 Mbps
- DS3: 45 Mbps

Managed Modem: Remote Access for telecommuting, access to e-mail and the Internet, or for client/server applications. Remote Access is a fully managed solution for all types of dialup connectivity. Two types of Remote Access are offered:

- ISP Remote Access: Fully managed dialup network infrastructure for Service Providers. Level 3 secures the phone numbers, deploys the network, and provides 24x7 support.
- Corporate Remote Access: Fully managed solution for all types of corporate dialup connectivity. Level 3 can provide either remote access to a private corporate network or the public Internet.

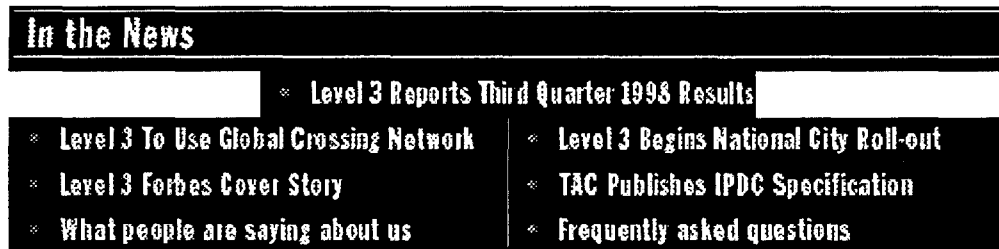
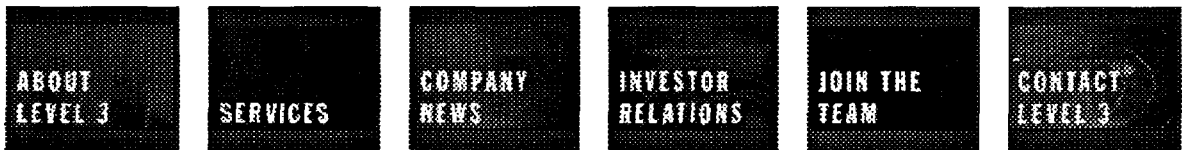
Telephony Collocation Services: State-of-the-art network of telephone and web-hosting equipment, including security and work areas for technicians. Installation also available.

Web Collocation: State-of-the-art facilities and unlimited bandwidth for businesses that rely on the Internet as a business channel. Level 3 Gateways allow customers to intelligently distribute their servers in geographic regions closest to their end users. The network platform features fully redundant OC-3 (155 Mbps) connections resulting in highly redundant Internet connectivity; also multiples DS-3 connections to major carrier backbones such as Sprint and UUNET. 24x7 customer support and security is part of the package.

Web Hosting: Offers all of the facilities and connectivity featured in Web Collocation service. In addition, the server of a hosting customer is administered for network availability on a 24x7 basis, and critical data is automatically backed up on Level 3's network. Offers 99.99% uptime guarantee and Service Level Agreements to ensure quality of service and responsiveness.

Level 3's Service Level Agreements:

- **Service Support:** Provides customers with a single point of access to resolve all customer issues. Level 3 will also provide a status on any reported issue within 30 minutes and guarantee an average time to repair (in a calendar month) of under two hours.
- **Network Performance:** Guarantees the availability of the customer's Internet port, as well as the performance across the national Level 3 Internet network.
- If the customer reports any failures to Level 3 Customer Service, the company will issue credits for confirmed outages.



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## Technology

Learn about the Technology of Level 3.

## Services

### Managed Modem

**Remote Access that's efficient, reliable, and cost-effective.**

Whether you need Remote Access for telecommuting, access to e-mail and the World Wide Web, or for using client/server applications, Remote Access from Level 3 is a fully managed solution for all types of dialup connectivity. Now you can eliminate the need to construct and maintain your own dial data network.

### Private Line

**High quality telecommunication services -- across the street or around the world.**

Level 3 is taking Private Line services to new heights. Our Private Line service offers a dedicated facility from start to finish. That means you won't have to coordinate or troubleshoot multiple components of a circuit. Level 3 is responsible end to end.

### Telephony Collocation Services

**Stay focused on your business. With Level 3's Collocation Services, there's no need to worry about network and facility expansion.**

At Level 3, collocation is serious business, and we are building more collocation space worldwide than anyone. But perhaps more important than that, is our understanding that every good partnership begins with trust. Level 3's collocation facilities are among the largest and most modern in the industry. Each facility features a state-of-the-art network of telephone and web hosting equipment -- everything your company needs to expand easily, while providing a quick, cost-efficient way to launch business communications.

### Internet Access

**Unprecedented performance, support, flexibility, and convenience.**

Whether it's high-speed corporate connectivity to the Internet, or dial-up access for remote or traveling employees, Level 3 provides unprecedented access quality and customer service. From technical questions to billing inquiries, Level 3 delivers fast, one-call resolution to any customer issue.

### Web Collocation

**Level 3 facilities offer unlimited bandwidth and connections.**

If your business relies on the Internet as a business channel, you'll appreciate Level 3's state-of-the-art facilities. And for customers with the expertise to run and manage their own web sites, Level 3's facility infrastructure offers the most advanced security features and diverse, redundant connectivity available to major Internet carriers and public exchanges.

**Web Hosting**

**Network availability maintained on a 24x7 basis -- better than 99.9% uptime guaranteed.**

All Level 3 facilities are world class, providing the highest level of security and support. Climate controlled, customer work areas and power that is managed with UPS and generator backup make Level 3 Gateways the ideal place to locate your servers. Strategically located gateways allow you to distribute servers in geographic regions close to your end users, and improve the performance of your website while reducing ongoing costs.

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### **High quality telecommunication services – across the street or around the world.**

Level 3 is taking Private Line services to new heights. Our Private Line services provide customers a highly reliable, cost-effective and manageable service, which makes networking a breeze.

Our national Private Line service offers a dedicated facility from start to finish, meaning Level 3 is responsible end to end. No more coordinating and troubleshooting multiple components of a circuit. Level 3 will also be offering local Private Line services which will keep customers connected across the street or around the world.

### **National Point to Point**

Level 3 offers point to point services from DS0 to DS3, which provide highly reliable connections between customer locations. These circuits are monitored and maintained by our Network Operations Control Center which provides customers standard reports on customer-specific circuit performance. At the core of our national network is SONET technology which will protect your service and minimize your costs.

### **The Level 3 Hub**

Level 3 will provide you the ability to distribute bandwidth simply and cost-effectively. For customers who need to distribute bandwidth to multiple sites in a market across the country, we can provide the intercity connection and deliver "pieces" of that circuit to various end users in that market. We act as your virtual point of presence and "hub" your service.

### **Product Reliability and Performance**

As an end-to-end solutions provider, Level 3 provides a more easily managed network.

Through our Network Operations Center we can:

- Monitor your network to ensure troubles are corrected immediately
- Give you visibility into the performance specifications of your circuits

### **Network Specifications and Target Service Level Agreements**

Services available: DS0, Fractional T1, E1\*, DS3

Target MTTR: 2 hours

Target Availability: 99.99%

\*Where local delivery of E1 is available

### **Billing Services**

As an added benefit, Level 3 has a clear, concise, consolidated invoice for all products.

This allows you to take advantage of systematically calculated and applied discounts based on aggregate spending. The bottom line - your invoice is easy to understand.

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## Internet Access - Keeping you connected

At Level 3, our mission is to keep you plugged in to communication. Our Internet Access Services provide ideal ways to do just that. We offer businesses high-speed connectivity to the Internet for their corporate office locations, as well as dial-up access for remote or traveling employees.

Additionally, Level 3 offers an unprecedented concept in customer service - one-call resolution for any customer issue. With one nationwide, toll-free number you'll have instant resolution to any billing, technical, or other inquiry. Level 3 customer service is staffed around the clock with Internet experts and offers a mean time of two hours to repair your service.

### Internet Dedicated Access

Level 3 Internet Dedicated Access products offer the following port speeds for dedicated PPP customer connections:

- 64 Kbps
- 128 Kbps
- 256 Kbps
- 384 Kbps
- 512 Kbps
- T1: 1.544 Mbps
- n x T1: 3 and 4.5 Mbps
- Fractional DS3: 6, 9, 12, 15, 18, 21 Mbps
- DS3: 45 Mbps

All of the following features are available to customers as an option:

- Primary DNS
- Secondary DNS
- Newsfeeds
- Port usage reports
- Assistance with registering customer's domain name
- IP address allocation from Level 3
- Assistance with BGP routing configuration
- POPmail accounts

### Service Level Agreement

Level 3 provides a two-part Service Level Agreement (SLA) which guarantees both network performance and Level 3's service support.

- **Service Support:** Level 3 will provide customers with a single point of access to resolve all customer issues. Level 3 will provide a status on any reported issue within 30 minutes and guarantee an

average time to repair (in a calendar month) of under two hours.

- **Network Performance:** Level 3 guarantees the availability of the customer's Internet port, as well as the performance across the national Level 3 Internet network.

If the customer reports any failures to Level 3 Customer Service, we will issue credits for confirmed outages.

#### **Service Locations**

- Atlanta
- Boston
- Chicago
- Dallas
- Denver
- Detroit
- Houston
- Los Angeles
- New York
- Philadelphia
- San Diego
- San Francisco
- San Jose
- Seattle
- Washington, DC

#### **Internet Dial Access**

Level 3's Internet Dial Access is designed to complement a customer's Dedicated Access connection by enabling connectivity for employees who travel or work at a remote site. We understand that retrieving e-mail when a user is away from the office can be critical to getting the job done or a signed deal. Level 3 has designed a Dial Access network with the business user in mind - meaning no busy signals, and local access numbers worldwide. The goal is to make your employees as productive as possible, by providing effortless connectivity around the globe.

#### **Dial Product Benefits:**

- Business Grade Service - high availability for the business traveler who demands instant connectivity, anywhere in the world
- Complete International and U.S. local number coverage
- Target P.01 Grade of Service (99% call completion during the busy hours of the day)
- Software customized for business applications
- Effortless account registration
- Free e-mail

#### **Dial Product Features:**

- 14.4 Kbps - 33.6 Kbps and v.90 Analog Access
- One e-mail account per user

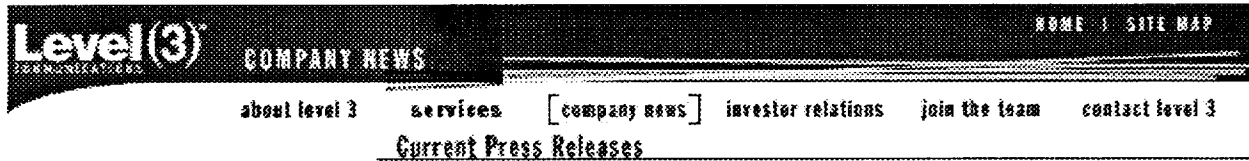
- User selects secure password for authentication

### **Billing Services**

As an added benefit, Level 3 provides a clear, concise, consolidated invoice for all products. This allows you to take advantage of systematically calculated and applied discounts based on aggregate spending. The bottom line - your invoice is easy to understand.

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## **LEVEL 3 COMMUNICATIONS LAUNCHES WASHINGTON D.C. FACILITY**

### **Level 3 Expects To Have Operations In 12-15 Cities By Year-End**

WASHINGTON, D.C., October 22, 1998 - Level 3 Communications, (Nasdaq: LVL3), today announced that it will this week begin providing certain telecommunications services in the Washington, D.C. metropolitan area as part of its national city roll-out. Level 3 is building the first international network optimized for Internet Protocol technology. The Level 3 Network will combine both local and long distance networks, connecting customers end-to-end across the U.S. and in Europe and Asia. By year-end, the company expects to be offering service in 12-15 U.S. cities.

Level 3 has announced it will construct local city networks directly serving businesses in 25 U.S. cities within the next three years. Ultimately, the company plans to offer local service capabilities over fiber facilities in 50 U.S. cities. Additionally, the company is currently building a 15,000 mile long distance network.

### **About Level 3's Washington, D.C. Operations**

The Level 3 office and operations facility is located at 1755 Old Meadow Road in McLean, Virginia. The 45,000 square foot facility will house the local sales staff, operational staff and gateway switch equipment, along with additional space for expansion and collocation services. Initially, Level 3 plans to employ approximately 35 professionals at the facility. The space was leased from West Group Properties through the services of Tishman Real Estate/HBW Group.

"We believe that, over time, Level 3 can have a positive impact on the business community in this city and the other cities we serve as we introduce advanced, more cost effective services, invest in advanced infrastructure in these cities, create jobs and contribute to the tax base. We will work hard to earn the trust of our D.C. metro customers and the city overall by providing high quality service and contributing as a corporate citizen," said Laurie Noce, Level 3 Washington, D.C. city director.

"From the Dulles and I-270 technology corridors to the government and business communities in downtown D.C., we are now positioned to set new standards in the industry with the most advanced communications services and highest quality of customer support, all at competitive prices. The Level 3 Washington D.C. metro office is extremely pleased to be a part of such a technically progressive business community," expressed Noce.

Level 3 believes it is now installing the basic building blocks for the future of communications in Washington and cities across the nation. By building a network based on IP technology, Level 3 is positioning itself to take advantage of what it sees as a fundamental technological shift in communications. The company believes that this shift from 100-year old circuit switching technology to the newer Internet Protocol technology will change the way businesses communicate, and that the shift is as important as that from the telegraph to the telephone, or from the mainframe to the PC.



**Initial Services Offered**

Level 3 is positioning itself to begin providing businesses with basic, but critical services on a competitive basis. Initially, Level 3 will use leased network capacity and, as its national IP-based network is completed, the company will be able to seamlessly switch customers to its own network.

The initial suite of products being offered to business customers by Level 3 include the following services:

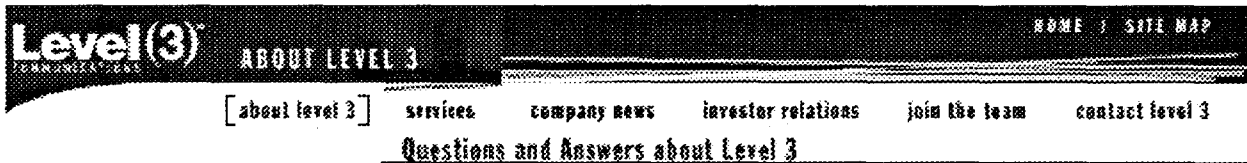
- *Private Lines* - a point-to-point service used to provide communications from one company location to another.
- *Managed Modem* - a complete outsourcing solution for Internet dial-up network management; and
- *Telephony Collocation* - a state-of-the-art network facility of telephone and web-hosting equipment to provide reliable and secure 24-hour access for mission critical equipment.

**About Level 3 Communications**

Level 3 Communications, Inc., is a communications and information services company that is building the first international network optimized for Internet Protocol technology. The Level 3 Network will combine both local and long distance networks, connecting customers end-to-end across the U.S. and in Europe and Asia. The company expects to complete the U.S. inter-city portion of the network during the first quarter of 2001. In the interim, Level 3 has signed an agreement to lease a national network over which it began to offer services in the third quarter of 1998. Level 3 will provide a full range of communications services (including local, long distance, international and Internet services). Level 3's common stock is traded on The Nasdaq National Market under the symbol LVL3. Its World Wide Web address is [www.Level3.com](http://www.Level3.com).

*The statements made by Level 3 in this press release may be forward-looking in nature. Actual results may differ materially from those projected in forward-looking statements. Level 3 believes that its primary risk factors include, but are not limited to: substantial capital requirements, development of effective internal processes and systems; the ability to attract and retain high quality employees; changes in the overall economy; technology; the number and size of competitors in its markets; law and regulatory policy; and the mix of products and services offered in the company's target markets. Additional information concerning these and other important factors can be found within Level 3's filing with the Securities and Exchange Commission. Statements in this release should be evaluated in light of these important factors.*

*Note to broadcast editors: B-roll is available upon request.*



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**What does the name 'Level 3' mean?**

- The term "Level 3" comes from the layered set of protocols, or standards that are often used in the industry to describe networks. The Company's strategy generally calls for services to be provided in the first three levels of these technical specifications.

**What are Level 3's plans for the network? Why do you think an IP network makes sense?**

- Level 3 intends to provide a full range of information and communications services, primarily to businesses, over the first end-to-end network designed and built specifically for Internet Protocol (IP) based services. That means that every layer of the network will be built, and optimized, for packet switching.
- The company expects to offer services over interconnected local and long distance networks it is building across the U. S. Plans also call for the Company to expand internationally - in Europe and Asia.
- There is a fundamental shift occurring today - as fundamental as the shift from the telegraph to the telephone or the mainframe computer to the PC - that is the shift to Internet technology and IP based communications.
- What will continue to drive that shift is economics. Today, these new networks are simply less expensive than the traditional hundred year old, telephone networks. And given the rapid improvements occurring in IP technologies, this advantage can be expected to widen in the future.

**What is the organizational structure of Level 3 Communications?**

- The parent company is Level 3 Communications, Inc.
- The operating subsidiary that contains the IP network is Level 3 Communications, LLC.
- Other businesses, which were owned by Kiewit Diversified Group Inc., will remain as operating subsidiaries or investments and will report to Level 3.
- **Major Operating Subsidiaries:**
  - **Level 3 Communications, LLC**  
Will provide a comprehensive range of communications services to businesses over a facilities based IP network currently under development.
  - **PKS Information Services, Inc. (PKSIS)**

Provides computer-outsourcing, systems integration and web-enabling services to customers in the U.S. and abroad.

- **Kiewit Coal Properties Inc.**  
Engages in the coal mining business through ownership of a 50% interest in three coal mines.
- **Equity Investments:**
  - **Cable Michigan, Inc. (CABL) -- 48.5%**  
Owns and operates cable television systems in the state of Michigan.
  - **Commonwealth Telephone Enterprises, Inc. (CTCO and CTCOB) -- 48.4%**  
A public utility providing local and long distance telephone service in Pennsylvania.
  - **RCN Corporation, Inc. (RCNC) -- 41.6%**  
Provides local and long distance telephone service, cable, video programming and Internet access to residential customers in the Northeast and Mid-Atlantic Regions.
- **Other investments:** SR91, CompuCook, DKA, and Burlington Resources

**What does Peter Kiewit Sons Information Services do? How does this business fit into the strategic plans of the new company?**

- PK SIS is a full-service provider of computer outsourcing, systems integration and enterprise Internet services to customers in the U.S. and abroad.
  - **Computer Outsourcing:**
    - Providing main frame computing, storage of data, telecommunications and software functions for businesses.
    - This is the largest part of PK SIS's business.
  - **Systems Integration:**
    - Enabling companies existing legacy systems to talk to each other.
    - Working on year 2000 conversions problems.
    - Business growing rapidly -- a close second in revenue.
  - **Web Enabling Software Development (NET Twenty-One):**
    - Working with customers to write new computer code or re-engineer code to operate their existing systems over the World Wide Web.
    - Building an Internet Competency Center in Omaha
- PK SIS currently has approximately 1,000 information service professionals, with 10 offices in the U.S., and international operations in Ireland, the United Kingdom, Brazil, India and Mexico.
- Level 3 will combine PK SIS's technical expertise with an advanced network infrastructure to offer its customers an integrated set of

services aimed at internet-enabling business applications currently operating on older legacy systems.

- PKSIS generated revenues of \$94M in 1997.
- The global market size for companies using outside vendors is estimated to be \$54B in 1998.
- PKSIS's main competitors are IBM's ISSC business; Electronic Data Systems Corp.; and Andersen Consulting.

**What are your plans for the former C-TEC companies?**

- Level 3 has no plans to dispose of its holdings in the former C-TEC companies - RCN, CABL, CTCO and CTCOB.

**What products do you plan to offer? (e.g. local, long distance, international)**

- Level 3 intends to offer a full range of information and communications services including local, long distance and data transmission as well as other enhanced services, such as web hosting, internet access, and virtual private networks.

**Who will be your targeted customer base?**

- We initially intend to target businesses. This includes both businesses which will be end-users of the Company's products, and also businesses who will re-sell the Company's products to both other businesses and residential customers.

**When will you begin offering service?**

- On March 24, 1998, we announced an agreement with Frontier Corporation to lease capacity on Frontier's 13,000 mile SONET fiber-optic OP-capable network. While we are building our own IP-based network, this lease agreement will allow us to provide service to business customers in several cities beginning in the 3rd quarter of 1998.

**What will be Level 3's critical success factors in the short and longer term?**

- One of the things that is critical for Level 3, particularly in the short term, is attracting and keeping the right people. The communications networking skills that the Company is looking for is in high demand and Level 3 hopes to offer the type of environment that is attractive. The choice of the location of our headquarters in Denver was based on that criterion.

**What are Level 3's competitive advantages?**

- We have the opportunity to build a network from scratch using Internet technology. We plan to build this network with the clear knowledge that technology is going to change, and is going to change rapidly. Our network will be designed to be easily upgraded, one that can evolve and change as the technology changes.
- We think being first to market with this type of concept is a huge advantage. This will enable us to help shape the standards for the future.

- We have an experienced management team, most of whom have worked together for many years.
- We have a significant amount of available capital.

**As more regulatory focus is placed on the Internet Service Providers, what impact would changes in the access charge structure for ISP's have on your plans?**

- Level 3's business plan does not assume a continuation of the exemption from access charges currently afforded to ISP's.
- The Company plans to build the most cost efficient network possible. Level 3's approach is to plan for a continuous drop of the cost to move one bit a mile per second. This should enable the Company to still have a significant cost advantage over our competition.

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**Network Questions**

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**How will your network be differentiated from the networks being built by other companies?**

- Most of the companies that are building new networks today are only building the long-haul portion of the network. We are planning to also build in the metropolitan areas.
- We intend for our entire network to utilize IP technology. The other networks, almost without exception, plan to build both an IP infrastructure and circuit switched infrastructure. Ours will be pure IP from start to finish, end to end.

**When will you start building the network? Will you lease any portion of your network from others?**

- We plan to start building the network in the second half of 1998.
- We plan to start construction in both the local and long haul segments of the business. In our initial target markets, we intend to lease components of the network, and move traffic to our own network as they are completed.
- We intend to be able to offer services in approximately fifteen metropolitan areas by the end of 1998. Obviously a good portion of those services will be leased initially.
- We will look at every option regarding our network build, and will lease where it makes economical sense. (e.g. the last mile to the building, some network routes, etc.)

**Will you sell any portion of your network to others? Will you engage in funding/building partnerships?**

- On July 20, 1998, we announced a cost-sharing network construction agreement with INTERNEXT, LLC. This agreement, valued at \$700 million, calls for INTERNEXT to acquire the right to use 24 fibers and associated facilities along our network.
- On the international front, Level 3 joined other leading global

telecommunications companies in a Construction and Maintenance Agreement to build the Japan-US Cable Network, an undersea cable system that will connect Japan and the United States by mid-year 2000. Level 3 holds a substantial financial stake and joint responsibility for oversight, maintenance and administration of this network.

**Do you plan to build out your entire network or possibly acquire companies with the right asset base?**

- Our current plan is to build out the entire network, but we will always evaluate the different opportunities as they are made available to us.

**How much do you estimate it will cost to fund your business plan?**

- We estimate that we will require \$8 to \$10B in capital to fund our planned business network.

**What is your timing for the network build?**

- The entire build will take approximately 4-6 years.

**What Rights Of Way (ROW) do you plan to use?**

- Level 3 currently has ROW agreements with both Union Pacific and Burlington Northern/Santa Fe Railways. These agreements allow Level 3 access to approximately 9,000 miles of the planned network along these rail routes, primarily west of the Mississippi.
- We are currently in negotiations with a number of different parties for ROW opportunities in the Eastern half of the U.S.
- Although there is a perception that ROW are difficult to obtain, we have found that there are opportunities in all of the traditional venues - e.g., railways, highways, pipeline, etc.

**What type of Operational Support Systems/Billing Support Systems do you plan to use?**

- Level 3 is currently building these critical support systems from the ground up, fully integrating them across the entire network. We are utilizing our previous experience to create the systems that will optimally support the anticipated business.
- These support systems are being created with future flexibility and upgradeability in mind.